oral administration has to be substituted for the intramuscular method. Should a positive test be obtained after the first course, then three intravenous injections of the salvarsan alternative are given with the second course, which is called an intermediate course, but this does not interfere with the second, third, fourth, and fifth courses. This means a lengthening of the whole course of treatment by six weeks and of observation by twelve weeks.

Causes of Bad Results.

1. *Age.*—Patients contracting syphilis after the age of 40 seem to have more difficulty in becoming cured, as judged by the blood test, than younger cases.

2. The longer the delay in starting treatment after infection the more disappointing are the results, and vice versa.

3. *A Virulent Infection.*—This may be explained either by a low resistance of the individual or a high virulence of the syphilitic virus, or a combination of both. Clinically, it appears impossible to state when one is dealing with such a case. I would, however, state that it is difficult to get and keep the reaction negative in rupial syphilis.

4. Alcoholics are a class in which it is difficult to get good results, and for this reason total abstinence is always enjoined.

5. If the teeth are bad and the mouth septic, as so often happens in hospital cases, oral administration is to be preferred to the intramuscular method, because, if the gums are "touched"—a point of saturation with mercury to be aimed at—an uncontrollable stomatitis is liable to be set up.

6. There are a limited number of persons who do not stand mercury well, and in these the prognosis is not good. There are also a limited number who show idiosyncrasy to intravenous medication with arsenical compounds. I would give a more guarded prognosis in the case of secondary syphilis with idiosyncrasy to mercury than in the case of idiosyncrasy to arsenic compounds.

Suppose a man presents himself with an early chancre on the penis and states that he has exposed his wife recently to infection, it seems debatable whether the woman ought not to be given a few intravenous injections of salvarsan substitutes. I quite admit that it could never be known whether she had been saved from general infection or not, but when we consider the enormous difference between early and late treatment it seems a suggestion worthy of further thought.

THE TREATMENT OF VENEREAL DISEASE.

BY

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AND

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EVERY great war has been followed by an increase in venereal disease, so marked that on occasions it has amounted to a pestilence. Unless timely sanitary precautions are taken the greatest of all wars is unlikely to furnish an exception to the rule. We think it desirable, therefore, to give an account of an essay in preventive medicine, which, as may be judged from the following, achieved considerable success.

One of us (A. R.) has been in medical charge of a rapidly changing body of men generally numbering about 2,000. Up to the end of 1916 venereal disease was common among them in spite of numerous moral lectures and in spite of adequate provision of what is known as "early treatment"—that is, disinfection after the "contact" has returned to quarters. At the beginning of 1917 a new system was instituted. The men were instructed to disinfect themselves immediately after danger had been incurred—just as a surgeon would disinfect his hands. This procedure is what is known as prophylaxis. It differs from early treatment merely in that the man carries the disinfectant and uses it immediately. Each man who applied was given an ounce of solution of potassium permanganate (at first in a strength of 1 in 2,000, later in a strength of 1 in 1,000), a small swab of cotton-wool, and careful directions. Potassium permanganate was chosen merely because it happened to be the most accessible disinfectant. The rationale of the procedure was fully explained, so that on an emergency the man could purchase the materials from any chemist. During 1917 and 1918 about 20,000 men

passed through the station, and among them precisely seven cases of venereal disease occurred, six of gonorrhoea and one of syphilis. Of the six cases of gonorrhoea, two only were contracted by men on leave, in each case from the man's own wife. Two of the others were drunk and took no precautions. The fifth man was infected the night he arrived, and he also, being unaware of the system, took no precautions. The sixth man practised early treatment an hour after intercourse. The man who acquired syphilis also carried no disinfectant, and used it (permanganate and calomel) two hours after intercourse. He had a long prepuce, and therefore a sensitive glans, and probably did not—probably could not—rub in the calomel vigorously.

The other of us (P. H. B.) commenced prophylaxis against venereal disease in the Royal Navy in 1907. Some eighteen months ago he took over medical charge of an establishment numbering over 2,000 officers and men. The amount of venereal disease, and especially gonorrhoea, was considerable, and it was recognized that of the men who stated they had used the so-called "dreadnoughts" some 40 per cent. contracted the disease. It thus became evident that nargol jelly as a preventive was practically inert. For the past nine months the method of immediate prophylaxis by means of the application of a solution of potassium permanganate (1 in 1,000) has been employed, with results as striking as those mentioned above in the case of the soldiers. Not a single case of gonorrhoea occurred amongst those employing this method, and only one of syphilis. This latter made the application about six hours after exposure to infection, and may therefore be counted out. Unfortunately the navy is a very conservative body, and many men still persist in sticking to the "dreadnoughts." But in lectures given on the subject of prophylaxis men are gradually being convinced of the simplicity and efficacy of immediate prophylaxis. The calomel cream is still reserved for those who have omitted to carry the permanganate solution on their persons, as it seems likely that the former affords some protection, even if an hour or two has elapsed since the risk of infection has been run.

It will be seen that no man, who followed instructions and disinfected himself immediately, acquired disease. Evidently the time element is of extreme importance. Probably there is no special virtue in potassium permanganate. Any other active antiseptic would be equally effective. But permanganate is the cheapest disinfectant and the best known to the public, the least poisonous, and least irritating.

PROFLAVINE OLEATE IN THE TREATMENT OF OPEN WOUNDS.

BY

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WE desire to draw attention to the value of proflavine oleate in the treatment of certain war wounds, notably those in which an exceedingly tender raw surface of considerable extent exists, the dressing of which is productive of acute pain. Such wounds are typically seen in amputation stumps, either without flaps or with flaps left unsutured, and before the process of granulation has set in. In many of these cases superficial sloughing is going on, and the immediate edges of the adjacent skin are reddish, swollen, and indurated. These wounds are exquisitely sensitive, and the removal from them of an adherent dressing is an agonizing process to the patient. In many instances these men are very ill, and their fortitude has been broken by the combined effects of shock, haemorrhage, toxic absorption, and the suffering occasioned thereby.

The dressing with which such patients usually arrive is of gauze soaked in some antiseptic in watery solution. The water soon evaporates and the gauze adheres tightly to the raw surface. This disadvantage is obviated by the use of proflavine oleate.*

* The preparation consists of 1 per cent. proflavine oleate contained in an ointment of suitable consistence, which is made up of paraffin and calcium carbonate in about equal parts by weight. For the production of proflavine oleate in quantity sufficient for clinical use we are indebted to Messrs. Boots, Nottingham.